



Serial ATA\* –  
The Next Wave Of Storage  
Interconnect Applications



# Serial ATA Board-to-Board and Cable-to-Board Solutions To Meet All Storage Applications

Changing applications in digital consumer technology are re-shaping the storage application landscape. Moving beyond traditional desktop and network storage applications, Serial ATA is quickly becoming an integral part of consumer electronic products with integrated hard disk drives.

With applications that include HDD-DVD recorders, home servers, multimedia hubs, LCD TVs digital jukeboxes, HDD-enabled game consoles, set-top boxes with personal video recorders, audio players and audiovisual devices for the automotive industry, insuring a secure connection is a primary concern.

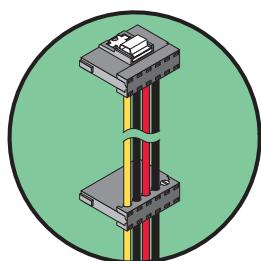
To address this concern Molex has incorporated a stainless metal latch into the design of its Serial ATA cable receptacles. When mated with a latch-designed plug, the metal latch catches the latch window on the plug side, thus providing a secure locking action.

Molex's global leadership and expertise in the design and manufacture of Serial ATA interconnect systems have allowed them to provide innovative solutions to the world's leading hard disk drive makers. Their ability to offer prompt time-to-market and low cost strategies makes Molex a reliable and innovative solution partner.

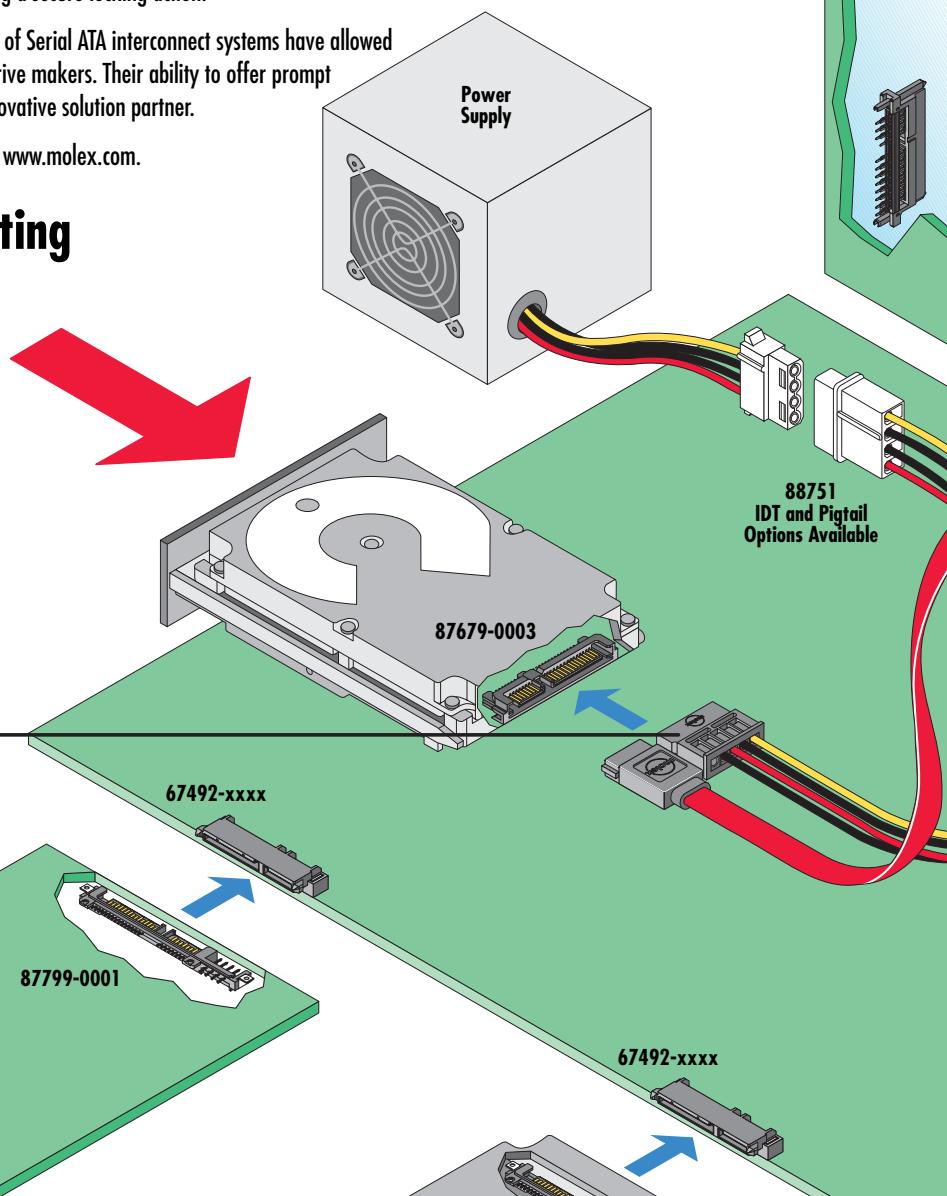
For more information on all Molex products, please visit our website at [www.molex.com](http://www.molex.com).

## Desktop Computing

- Hard Disk Drive
- Motherboard
- Power Supply
- Adapters
- Controller Boards
- Data Protection
- Workstation

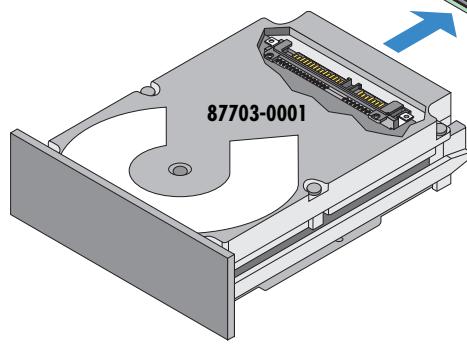


67926-0021  
67926-0011  
IDT With Metal  
Latch Available



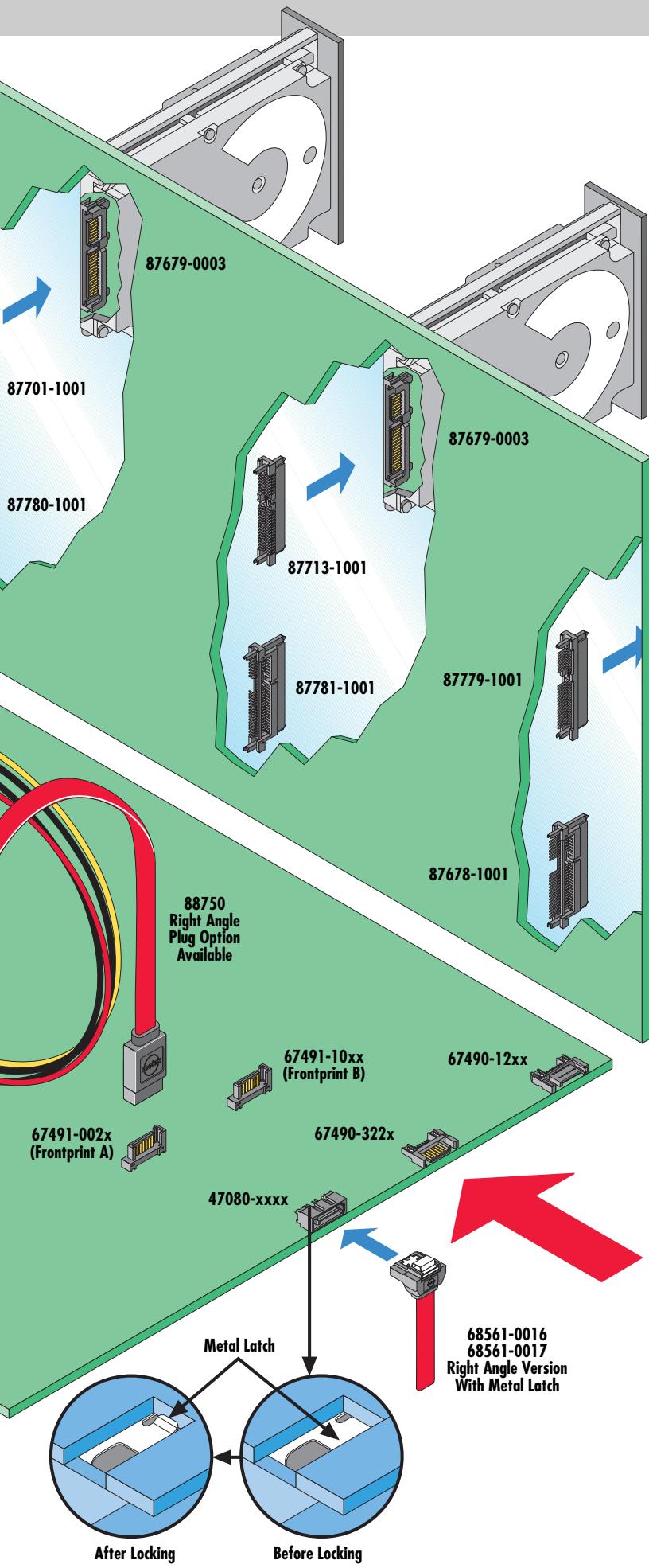
## Mobile Computing

- Notebook PC
- Sub-Notebook PC
- Media PC
- Multimedia Peripherals





# Serial ATA Connectors Family Overview and Applications



## Enterprise Computing

- Mid Range Servers
- Network Storage
- RAID Storage
- Backplane
- Internet Services

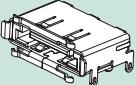
## Emerging Trends

- Set-Top Box
- Digital Audio
- Automotive – Navigation
- Brown Goods
- Optical Drives
- HDTV Home Theatre
- Games – 3D Video

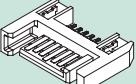
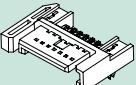
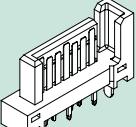
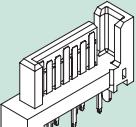


\*Serial ATA is a trademark of the Serial ATA<sup>sm</sup> Trade Association

**EXTERNAL SATA RECEPTACLE**

	Description	Lead-Free Order No.	Features					
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging	
	External SATA Receptacle, SMT, Metal Shell	47082-0000	Gold Flash	Black	NA	Flat Metal Peg	Embossed Tape On Reel	With Mylar
		47082-2000	0.76µm/30µ" Gold					
		47082-1000	0.38µm/15µ" Gold					

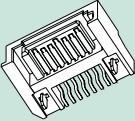
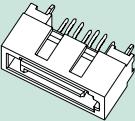
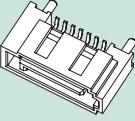
**SIGNAL PLUGS**

	Description	Lead-Free Order No.	Features								
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging				
	Right Angle SMT Signal Plug (Reverse Mount)	67490-3220	Gold Flash		NA	Flat Metal Peg	Tray				
		67490-3221	0.76µm/30µ" Gold								
		67490-3225	0.38µm/15µ" Gold								
	Right Angle SMT Signal Plug (Standard Mount)	67490-1220	Gold Flash		NA	Flat Metal Peg	Tray				
		67490-1221	0.76µm/30µ" Gold								
		67490-1225	0.38µm/15µ" Gold								
		67490-1230	Gold Flash								
		67490-1231	0.76µm/30µ" Gold								
		67490-1235	0.38µm/15µ" Gold								
		67490-1240	Gold Flash								
		67490-1241	0.76µm/30µ" Gold								
		67490-1245	0.38µm/15µ" Gold								
	88750-5418 Vertical Through Hole Signal Plug (Footprint A)	67491-0020	Gold Flash		Black	Flat Metal Peg	Tray				
		67491-0021	0.76µm/30µ" Gold								
		67491-0022	0.38µm/15µ" Gold								
		67491-0025	Gold Flash								
		67491-0026	0.76µm/30µ" Gold								
		67491-0027	0.38µm/15µ" Gold								
	Vertical Through Hole Signal Plug (Footprint B)	67491-1030	Gold Flash		2.05mm	Flat Metal Peg	Tray				
		67491-1031	0.76µm/30µ" Gold								
		67491-1032	0.38µm/15µ" Gold								
		67491-1035	Gold Flash								
		67491-1036	0.76µm/30µ" Gold		2.35mm						
		67491-1037	0.38µm/15µ" Gold								
		67491-1038	Gold Flash		2.05mm		Tray				
		67491-1039	0.76µm/30µ" Gold								
		67491-1040	0.38µm/15µ" Gold		3.00mm						

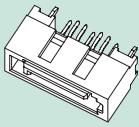
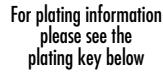
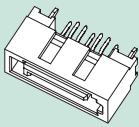
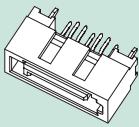
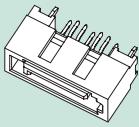
**Cable Assemblies**  
88750-5310  
8750-5318  
88750-5400  
88750-5410

**Signal Cable Assemblies**  
67489-100y  
67489-800y

**SIGNAL PLUGS**

	Description	Lead-Free Order No.	Features									
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging					
	<b>Right Angle SMT Plug With Peg, Latch Type</b>	47080-4001	Gold Flash	Black	NA	Flat Metal Peg 2.60mm	Embossed Tape On Reel	With Mylar				
		47080-4002	0.76µm/30µ" Gold									
		47080-4005	0.38µm/15µ" Gold									
		47080-5001	Gold Flash	Natural								
		47080-5002	0.76µm/30µ" Gold									
		47080-5005	0.38µm/15µ" Gold									
		47080-6001	Gold Flash	Blue								
		47080-6002	0.76µm/30µ" Gold									
		47080-6005	0.38µm/15µ" Gold									
	<b>Vertical Through Hole Signal Plug, Latch Type</b>	47155-4001	Gold Flash	Black	2.10mm PC Tail	Flat Metal Peg 2.65mm	Tray	67489 88750-5310 88750-5318 88750-5410 88750-5418				
		47155-4031		Blue								
		47155-4041		Natural								
	<b>Vertical SMT Signal Plug, Latch Type</b>	67800-5001		Black	NA	Round Peg 2.65mm	Tray	67489 88750-5310 88750-5318 88750-5410 88750-5418				
		67800-5002										
		67800-5005										
		67800-5021		NA	Round Peg 3.45mm	Tray						
		67800-5022										
		67800-5025										

**SIGNAL PLUGS**

	Description	Lead-Free Order No.	Features					
			Plating	Housing Color	PC Tail Length	Peg Type And Length	Packaging	Mates With
	Vertical Through Hole Signal Plug, Latch Type (Footprint A)	67800-8X0Y	 For plating information please see the plating key below	Black	2.45mm		Tray	 <b>Cable Assemblies</b> 68561-0014 68561-0015 68561-0016 68561-0017
		67800-8X1Y			2.85mm			
		67800-8X2Y			3.25mm			
		67800-8X3Y		Blue	2.45mm			
		67800-8X7Y			2.85mm			
		67800-8X8Y			3.25mm			
		67800-8X4Y		Natural	2.45mm			
		67800-8X5Y			2.85mm			
		67800-8X6Y			3.25mm			
	Vertical Through Hole Signal Plug, Latch Type (Footprint B)	67800-7X0Y		Black	2.45mm			 <b>Signal Cable Receptacles</b> 67489-000Y 67489-200Y 67489-700Y 67489-200Y
		67800-7X1Y			2.85mm			
		67800-7X2Y			3.25mm			
		67800-7X3Y		Blue	2.45mm			
		67800-7X7Y			2.85mm			
		67800-7X8Y			3.25mm			
		67800-7X4Y		Natural	2.45mm			
		67800-7X5Y			2.85mm			
		67800-7X6Y			3.25mm			

**Housing Material** Replace X With:

0 = Thermoplastic

1 = High Temperature Thermoplastic

**Contact Plating**

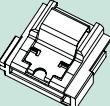
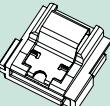
Replace Y With:

1 = Gold Flash

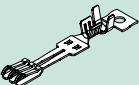
2 = 0.76 $\mu$ m/30 $\mu$ " Gold

5 = 0.38 $\mu$ m/15 $\mu$ " Gold

**SIGNAL CABLE RECEPTACLES**

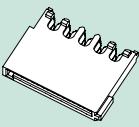
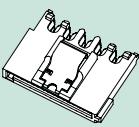
	Description	Lead-Free Order No.	Features					
			Plating	Locking	Packaging	Mates With		
	Right Angle Signal Receptacle	67489-1001	Gold Flash	Friction Locking	Tray	67490 67491		
		67489-1002	0.76µm/30µ" Gold					
		67489-1005	0.38µm/15µ" Gold					
	Vertical Signal Receptacle	67489-8001	Gold Flash	Friction Locking	Tray	67490 67491		
		67489-8002	0.76µm/30µ" Gold					
		67489-8005	0.38µm/15µ" Gold					
 	Right Angle Signal Receptacle With Metal Latch	67489-0001	Gold Flash	Metal Latch	Tray	47080 47155 67800		
		67489-0002	0.76µm/30µ" Gold					
		67489-0005	0.38µm/15µ" Gold					
		67489-2001	Gold Flash	Metal Latch And Friction Locking				
		67489-2002	0.76µm/30µ" Gold					
		67489-2005	0.38µm/15µ" Gold					
 	Vertical Signal Receptacle With Metal Latch	67489-9001	Gold Flash	Metal Latch	Tray	47080 47155 67800		
		67489-9002	0.76µm/30µ" Gold					
		67489-9005	0.38µm/15µ" Gold					
		67489-7001	Gold Flash	Metal Latch And Friction Locking				
		67489-7002	0.76µm/30µ" Gold					
		67489-7005	0.38µm/15µ" Gold					

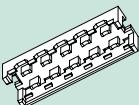
**POWER CONNECTORS**

	Description	Lead-Free Order No.	Features				
			Plating	Reel Direction	Wire Gauge	Packaging	
	Crimp Power Terminal	67581-0000	Gold Flash	Clockwise	18 AWG	Reel	
		67581-0001	0.76µm/30µ" Gold	Clockwise			
		67581-0002	0.38µm/15µ" Gold	Clockwise			
		67581-0010	Gold Flash	Anti-Clockwise			
		67581-0011	0.76µm/30µ" Gold	Anti-Clockwise			
		67581-0012	0.38µm/15µ" Gold	Anti-Clockwise			
		47128-1000	Gold Flash	Anti-Clockwise	18 AWG 22 AWG		
		47128-1001	0.76µm/30µ" Gold	Anti-Clockwise			
		47128-1002	0.38µm/15µ" Gold	Anti-Clockwise			
		47128-1009	Unplated	Anti-Clockwise			

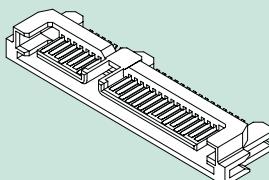
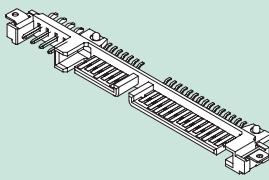
	Description	Lead-Free Order No.	Housing Material	Packaging	Mates With
	Crimp Power Housing	67582-0000	Thermoplastic	Bag	67581 47128

**POWER CONNECTORS**

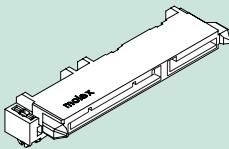
	Description	Lead-Free Order No.	Features					
			Plating	Locking	Packaging	Mates With		
 <b>Without Latch</b>  <b>With Latch</b>	<b>IDT Power Receptacle</b>	67926-0001	Gold Flash	Metal Latch		87679  Use With: 67926-0040 67926-0041		
		67926-0002	0.76µm/30µ" Gold					
		67926-0005	0.38µm/15µ" Gold					
		67926-0011	Gold Flash	Friction Locking				
		67926-0012	0.76µm/30µ" Gold					
		67926-0015	0.38µm/15µ" Gold					
		67926-0021	Gold Flash	Metal Latch And Friction Locking				
		67926-0022	0.76µm/30µ" Gold					
		67926-0025	0.38µm/15µ" Gold					

	Description	Lead-Free Order No.	Termination Style	Unmated Height	Packaging	Mates With
	Feed-To Cover For IDT Power Receptacle	67926-0040	Feed-To	4.99mm (.198")		67926-000* 67926-001*
	Feed-Through Cover For IDT Power Receptacle	67926-0041	Feed-Through	4.90mm (.193")		

**COMBO PLUGS**

	Description	Lead-Free Order No.	Features			Mates With	
						Board-to-Board	Cable-to-Board
			Plating	Locking	Packaging	Combo Receptacles	Signal
	Device Plug With Latching Straddle Mount	87679-0003			        	  	  
	Device Plug SMT Without Jumper						
	Device Plug, SMT With Jumper	87799-0001					

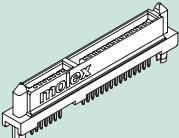
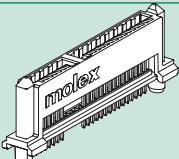
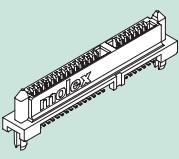
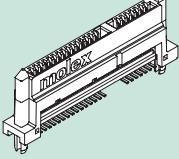
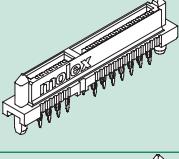
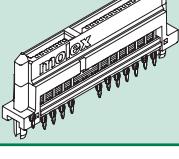
**COMBO RECEPTACLES**

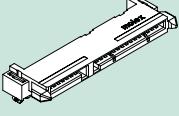
	Description	Lead-Free Order No.	Features			
			Plating	Housing Color	Unmated Height	Packaging
	<b>Right Angle SMT Receptacle</b>	67492-1120	Gold Flash		3.55mm (.140")	
		67492-1121	0.76µm/30µ" Gold		5.25mm (.207")	
		67492-1122	0.38µm/15µ" Gold		5.90mm (.232")	
		67492-1123	Gold Flash Over Palladium-Nickel		6.74mm (.285")	
		67492-1320	Gold Flash			
		67492-1321	0.76µm/30µ" Gold			
		67492-1322	0.38µm/15µ" Gold			
		67492-1323	Gold Flash Over Palladium-Nickel			
		67492-1420	Gold Flash			
		67492-1421	0.76µm/30µ" Gold			
		67492-1422	0.38µm/15µ" Gold			
		67492-1423	Gold Flash Over Palladium-Nickel			
		67492-9220	Gold Flash			
		67492-9221	0.76µm/30µ" Gold			
		67492-9222	0.38µm/15µ" Gold			
		67492-9223	Gold Flash Over Palladium-Nickel			

Combo Plugs  
87679  
87703  
87799

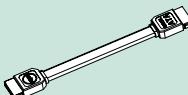
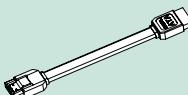
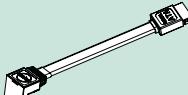
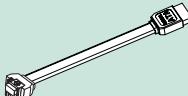
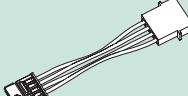
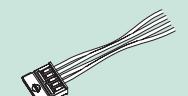
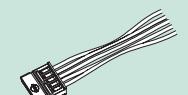
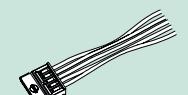
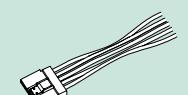
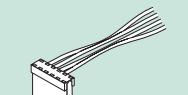
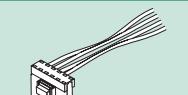
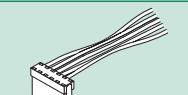
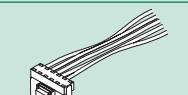


## COMBO RECEPTACLES

	Description	Lead-Free Order No.	Features		
			Plating	PCB Thickness	Mates With
	Vertical Backplane Receptacle, Through Hole, Standard Height	87779-1001	0.76µm/30µ" Gold	0.8mm (0.031") – 2.5mm (0.098")	87703 87679 87799
	Vertical Backplane Receptacle, Through Hole, Extended Height	87678-1001			
	Vertical Host SMT, Receptacle, Standard Height	87713-1001			
	Vertical Host Receptacle, SMT, Extended Height	87781-1001			
	Vertical Host Receptacle, Press-Fit, Standard Height	87701-1001			
	Vertical Host Receptacle, Press-Fit, Extended Height	87780-1001			

	Description	Lead-Free Order No.	Features			
			Plating	Unmated Height	Mates With	
	Host Receptacle, SMT, Right Angle, Top Mount	47018-2000	Gold Flash	4.30mm (.169")	87679 87703 87799	
		47018-2001	0.76µm/30µ" Gold			
		47018-2002	0.38µm/15µ" Gold			
		47018-3000	Gold Flash	4.70mm (.185")		
		47018-3001	0.76µm/30µ" Gold			
		47018-3002	0.38µm/15µ" Gold			
		47018-4000	Gold Flash	5.15mm (.203")		
		47018-4001	0.76µm/30µ" Gold			
		47018-4002	0.38µm/15µ" Gold			

**CABLE ASSEMBLIES**

	Description	Lead-Free Order No.	Features		Mates With
	Signal Cable Assembly, Straight-To-Straight	88750-5310	0.5m, Grey	Contact Plating: 0.76µm/30µ" Gold	Signal Plugs
		88750-5318	0.5m, Red		Combo Plugs
		88750-5418	1.0m, Red		67490 67491
	Signal Cable Assembly, Straight Latching-To-Straight Latching	68561-0014	0.5m, Red	67800 47080	87679
		68561-0015	1.0m, Red		
	Signal Cable Assembly, Straight-To-Right Angle	88762-5400	0.5m, Red	67490 67491	87679
		88762-5410	1.0m, Red		
	Signal Cable Assembly, Straight Latching-To-Right Angle Latching	68561-0016	0.5m, Red	67800 47080	87679
		68561-0017	1.0m, Red		
	Power Adapter, Crimping Type	88751-1310	6", Gold flash, (5V+12V)	87679 87703 87799	
		88751-1311	6", 0.76µm/30µ" Gold, (5V+12V)		
	4-pin Power Harness To Pigtail, Crimping Type	88751-1410	1.5m, Gold Flash, (5V+12V)	87679 87703 87799	
		88751-1411	1.5m, 0.76µm/30µ" Gold, (5V+12V)		
	5-pin Power Harness To Pigtail, Crimping Type	88757-7810	1.5m, Gold Flash, (3.3V+5V+12V)	87679 87703 87799	
		88757-7811	1.5m, 0.76µm/30µ" Gold, (3.3V+5V+12V)		
	Power Adapter, IDT Type	88761-4500	6", Gold Flash, (5V+12V) Feed-To Version	NA	
		88761-4510	6", 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	Power Adapter, IDT With Latch Type	68561-0018	6", Gold Flash, (5V+12V) Feed-To Version	87679	
		68561-0019	6", 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	4-pin Power Harness To Pigtail, IDT Type	88761-4600	1.5m, Gold Flash, (5V+12V) Feed-To Version	87679 87703 87799	
		88761-4610	1.5m, 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	4-pin Power Harness To Pigtail, IDT With Latch Type	68561-0020	1.5m, Gold Flash, (5V+12V) Feed-To Version	87679	
		68561-0021	1.5m, 0.76µm/30µ" Gold, (5V+12V) Feed-To-Version		
	5-pin Power Harness To Pigtail, IDT Type	88761-4700	1.5m, Gold Flash, (3.3V+5V+12V) Feed-To Version	87679 87703 87799	
		88761-4710	1.5m, 0.76µm/30µ" Gold, (3.3V+5V+12V) Feed-To-Version		
	5-pin Power Harness To Pigtail, IDT With Latch Type	68561-0022	1.5m, Gold Flash, (3.3V+5V+12V) Feed-To Version	87679	
		68561-0023	1.5m, 0.76µm/30µ" Gold, (3.3V+5V+12V) Feed-To-Version		



*Bringing People & Technology Together, Worldwide<sup>SM</sup>*

**Far East South Headquarters**

Jurong, Singapore  
Tel: 65-6268-6868  
fesinfo@molex.com

**Far East North Headquarters**

Yamato, Kanagawa, Japan  
Tel: 81-462-65-2324  
feninfo@molex.com

**Americas Headquarters**

2222, Wellington Court  
Lisle, Illinois 60532 U.S.A.  
Tel: 1-800-78MOLEX  
amerinfo@molex.com

**European Headquarters**

Munich, Germany  
Tel: 49-89-413092-0  
eurinfo@molex.com

**Corporate Headquarters**

2222 Wellington Court  
Lisle, Illinois 60532 U.S.A.  
Tel: 630-969-4550  
Fax: 630-969-1352

Visit our website at [www.molex.com](http://www.molex.com)